

## CLAIMS

What is claimed is:

1. A method for producing a filamentous bacterium exhibiting reduced branching and fragment septation during growth, particularly growth in a liquid medium, said method comprising:

providing a filamentous bacterium, said filamentous bacterium lacking significant endogenous ssgA activity, with the capability of having or expressing heterologous SsgA-activity, which activity, in *Streptomyces griseus*, is encoded by an ssgA gene having at least the sequence:

1 ATGCGCGAGTCGGTTCAAGCAGAGGTCA TGATGAGCTTCCTCGTCTCCGA  
51 GGAGCTCTCGTTCCGTATTCCGGTGGAGCTCCGATACGAGGTCGGCGATC  
101 CGTATGCCATCCGGATGACGTTCCACCTTCCCGGCGATGCCCCTGTGACC  
151 TGGGCGTTCGGCCGCGAGCTGCTGCTGGACGGGCTCAACAGCCCGAGCGG  
201 CGACGGCGATGTGCACATCGGCCCCGACCGAGCCCGAGGGCCTCGGAGATG  
251 TCCACATCCGGCTCCAGGTCGGCGCGGACCGTGCGCTGTTCCGGGCGGGG  
301 ACGGCACCGCTGGTGGCGTTCCTCGACCGGACGGACAAGCTCGTGCCGCT  
351 CGGCCAGGAGCACACGCTGGGTGACTTCGACGGCAACCTGGAGGACGCAC  
401 TGGGCCGCATCCTCGCCGAGGAGCAGAACGCCGGCTGA.

2. A method for producing a filamentous bacterium exhibiting enhanced fragmentation during growth, particularly growth in a liquid medium, said method comprising:

providing a filamentous bacterium, wherein said filamentous bacterium lacks significant endogenous ssgA activity, with the capability of having or expressing heterologous ssgA-activity, which activity in *Streptomyces Griseus* is encoded by an ssgA gene having the sequence:

1 ATGCGCGAGTCGGTTCAAGCAGAGGTCATGATGAGCTCCTCGTCTCCGA  
 51 GGAGCTCTCGTTCCGTATTCCGGTGGAGCTCCGATACGAGGTCGGCGATC  
 101 CGTATGCCATCCGGATGACGTTCCACCTTCCCGGCGATGCCCCCTGTGACC  
 151 TGGGCGTTCCGGCCGCGAGCTGCTGCTGGACGGGCTCAACAGCCCGAGCGG  
 201 CGACGGCGATGTGCACATCGGCCCGACCGAGCCCGAGGGCCTCGGAGATG  
 251 TCCACATCCGGCTCCAGGTCGGCGCGGACCGTGCGCTGTTCCGGGCGGGG  
 301 ACGGCACCGCTGGTGGCGTTCCTCGACCGGACGGACAAGCTCGTGCCGCT  
 351 CGGCCAGGAGCACACGCTGGGTGACTTCGACGGCAACCTGGAGGACGCAC  
 401 TGGGCCGCATCCTCGCCGAGGAGCAGAACGCCGGCTGA.

3. The method according to claim 1 or 2, wherein said additional SsgA-activity is provided by transfecting or transforming said filamentous bacterium with additional genetic information encoding said activity.

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4. The method according to claim 3, wherein said additional genetic information comprises an ssgA gene or a derivative or fragment thereof encoding similar SsgA-activity.
5. The method according to claim 4, wherein said ssgA gene is derived from an actinomycete.
6. The method according to claim 4, wherein said gene is derived from a streptomycete.
7. The method according to claim 5, wherein said gene is derived from *Streptomyces griseus*, *Streptomyces collinus*, *Streptomyces albus*, *Streptomyces goldeniensis* or *Streptomyces netropsis*.
8. The method according to any one of claims 3-7, wherein said additional genetic information is integrated into the bacterial genome.
9. The method according to any one of claims 3-8, wherein said additional genetic information is part of an episomal element.
10. The method according to any of the foregoing claims, wherein said filamentous bacterium does not have significant endogenous ssgA-activity.
11. The method according to any one of the foregoing claims wherein said ssgA-activity is inducible or repressible with a signal.
12. The method according to any one of the aforementioned claims wherein said filamentous bacterium is an Actinomyces.
13. The method according to claim 12, wherein said bacterium is a Streptomyces.
14. The method according to any one of the foregoing claims wherein said filamentous bacterium produces a useful product.

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